CITY OF MOUNTAIN VIEW

Application for Industrial Wastes Discharge Permit

Date February 5, 1980 No. 006-81-4

A. Name of Organization Fairchild Camera & Instrument Corporation
Address 464 Ellis St. Mtn. View, Ca 94040 Bldg. #20
Address of Point of Discharge 464 Ellis St. Mtn. View, Ca 94040 Bldg. #20
Individual Responsible for industrial waste — Name Gregory Geary — Signature Gregory Geary — Telephone (415) 962-4773 (408) 371-3532
Attach Map Showing Point of Discharge, Sampling Points, and Waste Treatment Facility.

B. Flow Rate: Average 567,000 gals/day Max. 625,000 gals/day Peak Hourly 590 GPM

C. Submit separate statement:
1. Detailing type of industry and nature of products
2. Listing chemicals used and approximate concentrations
3. Describing waste treatment facilities
4. Giving characteristics of exceptional industrial wastes
5. Concerning radioactive wastes
6. Naming organic solvents discharged and concentration at point of discharge

D. Indicate the point of discharge concentration of the following characteristics and mass emission rates where applicable.

Biochemical oxygen demand (B.O.D.)	50 mg/1	Grease and oil, total	0 mg/1
Chemical oxygen demand (C.O.D.)	100 mg/1	Hydrogen Ion content pH	5.5 - 10.0
Total Solids, Average	500 mg/1	Fluoride	5.0 mg/1
Suspended Solids, Average	20 mg/1	Chlorine demand	5.0 mg/1
Temperature	70 °F		

	Max. Conc. Allowable mg/1	Allowable Mass Emission Rate kg/day		Max. Conc. Allowable mg/1	Allowable Mass Emission Rate kg/day
Arsenic	0.1	0.01	Formaldehyde	5.0	0.5
Barium	5.0	0.5	Lead	0.5	0.05
Beryllium	1.0	0.1	Manganese	1.0	0.1
Boron	1.0	0.1	Mercury	0.05	0.005
Chlorine	50.0	5.0	Nickel	1.0	0.1
Cadmium	0.1	0.01	Chloroform	50.0	5.0
Chromium Hexavalent	1.0	0.1	Phenols	1.0	0.1
Chromium Total	2.0	0.2	Selenium	2.0	0.2
Cobalt	1.0	0.1	Silver	5.0	0.5
Copper	1.0	0.1	Zinc	5.0	0.5
Cresols	2.0	0.2			
Cyanides	1.0	0.1			

NOT TO BE COMPLETED BY APPLICANT

Permit to Discharge Industrial Wastes in Accordance with This Application Approved Subject to Attached General and Specific Conditions
Allen Shelley, Director of Public Works
Signature Allen Shelley Date 2-5-80

Permit to Discharge Exceptional Industrial Waste Approved
List Details:

Allen Shelley, Director of Public Works
Signature _____ Date _____

DISTRIBUTION: Original to Industrial Waste File, Copy to Discharger, Copy to Water Quality Control Plant, Copy to Palo Alto, Copy to Sewer Division.

(PW-23)

CITY OF MOUNTAIN VIEW

Industrial Waste Discharge Permit

DATE: February 5, 1980 NO. 006-81-4

NAME OF ORGANIZATION: Fairchild Camera & Instrument Corporation

ADDRESS: 464 Ellis Street, Mountain View, Calif. 94043

GENERAL CONDITIONS

1. This permit is issued under the ordinances and regulations of the City of Mountain View currently in effect, but all discharges hereunder shall comply with all ordinances and regulations of the City and all other applicable local, state, and federal regulations, whether now in effect or hereafter adopted or amended.

2. Any violation of the terms of this Permit or the ordinances or regulations of the City shall be grounds for revocation.

3. If any proposed revisions in plant operations are expected to cause significant changes in waste water quality or quantity (25 percent or more, or 25,000 gallons per day) from that given in approved Permit information, an application for an amended permit must be submitted for approval detailing the nature of the changes.

4. In accordance with Section 35.32.8 of the City Code, accidental discharges of industrial wastes shall be reported immediately to the Public Works Department, telephone number 967-7211, Ext. 270, during normal office hours, or to the Fire Department, telephone number 968-4415, on holidays or after normal office hours AND to the Palo Alto Regional Water Quality Control Plant, telephone number 329-2598 so that appropriate countermeasures may be taken.

5. This Permit is not transferable without prior written consent of the Director of Public Works. In general, a change of ownership will require a new permit.

6. The issuance of this permit does not constitute a warranty that the design capacity of the sewage collection and treatment system is sufficient to accommodate peak sewage flows from all dischargers who may now or hereafter be connected to the system. Pursuant to Sec. 35.32.1(d) the City reserves the right to impose restrictions on sewage discharges where necessary in the judgment of the City to assure the proper functioning in the sewerage system.

SPECIFIC CONDITIONS

1. This permit is for a period ending on April 1, 1981 if significant progress has been made in reducing total plant flow and approved pretreatment facilities have been installed.

2. This permit applies to industrial waste discharges at the following location(s) only:

   464 Ellis Street

   Building No. 20

3. Your attention is called to the fact that flow rates shown on the permit application exceed per-acre design flows of the sewers serving the above locations. Restrictions or additional charges may be imposed in accordance with Sec. 35.32.1(d) of the City Code should peak sewage flows from the total upstream acreage approach the capacity of these sewers.

ADDITIONAL INFORMATION REGARDING THE I.W. PERMIT FOR BUILDING 1, 2 & 3

(1) The LIC relocation to Building 1 will remove production at Building 20, resulting in a transfer of water flow within the Mountain View complex (not a water flow increase).

(2) The conversion from 3" to 4" wafers by LIC will result in a 44% increase in production with no increased labor or water usage.

(3) A BPM group will move from Building 20 to the South San Jose facility in the second quarter of 1980, eliminating the flow from this operation.

(4) The BPM operations that remain in Mountain View will convert from 3" to 4" wafers, resulting in a 44% production increase with no increased labor or water usage.

(5) The Transistor group will be moving to the San Rafael facility, resulting in the elimination of flow from this operation.

(6) A 6 month feasability study will be performed on 300 gpm D.I. Water reclaim and 600 gpm treated effluent reclaim.

(7) Pending favorable completion of the feasability studies, construction of the above reclaim systems will take an estimated 2 years (depending upon economic climate).

(8) The projected flow rates from the new system were based on peak water usage at full production rates, actual flow rates will be less.

(9) The relocation of LIC at Building 1 will not be fully operational until 1-2 years after start-up.

(10) Actual flow rates can only be measured after the system is installed. Loss of water via cooling towers is known to be significant.

(11) Planning is under way to convert to 5" wafers. This would yield a 63% production increase over todays output without increasing labor or water usage.

(12) The vast majority of construction projects at FC & I are based on technological advances to increase yields, not new production that requires more labor or water usage.

(13) Even without the above, the new neutralization pit would not increase our total water discharge but would tend to only balance the discharge from two locations.

APPLICATION FOR INDUSTRIAL WASTES DISCHARGE PERMIT, ITEM C.

Type of Industry and Nature of Products

Fairchild Semiconductor processes silicon metal into electronic semiconductor devices.

Chemicals used in semiconductor device processing are:

Gases	Liquids	Liquids
Nitrogen	Sulfuric acid	Methanol
Hydrogen	Nitric acid	Isopropanol
Oxygen	Hydrofluoric acid	Methylene chloride
Argon	Hydrochloric acid	Trichloroethane
Hydrogen chloride	Acetic acid	Detergents
Chlorine	Phosphoric acid	Aluminum sulfate
Compressed air	Ammonium fluoride	Sodium carbonate
Ammonia	Ammonium hydroxide	Sodium hydroxide
	Acetone	Freon
		Glycerin
		Xylene

Waste treatment facilities

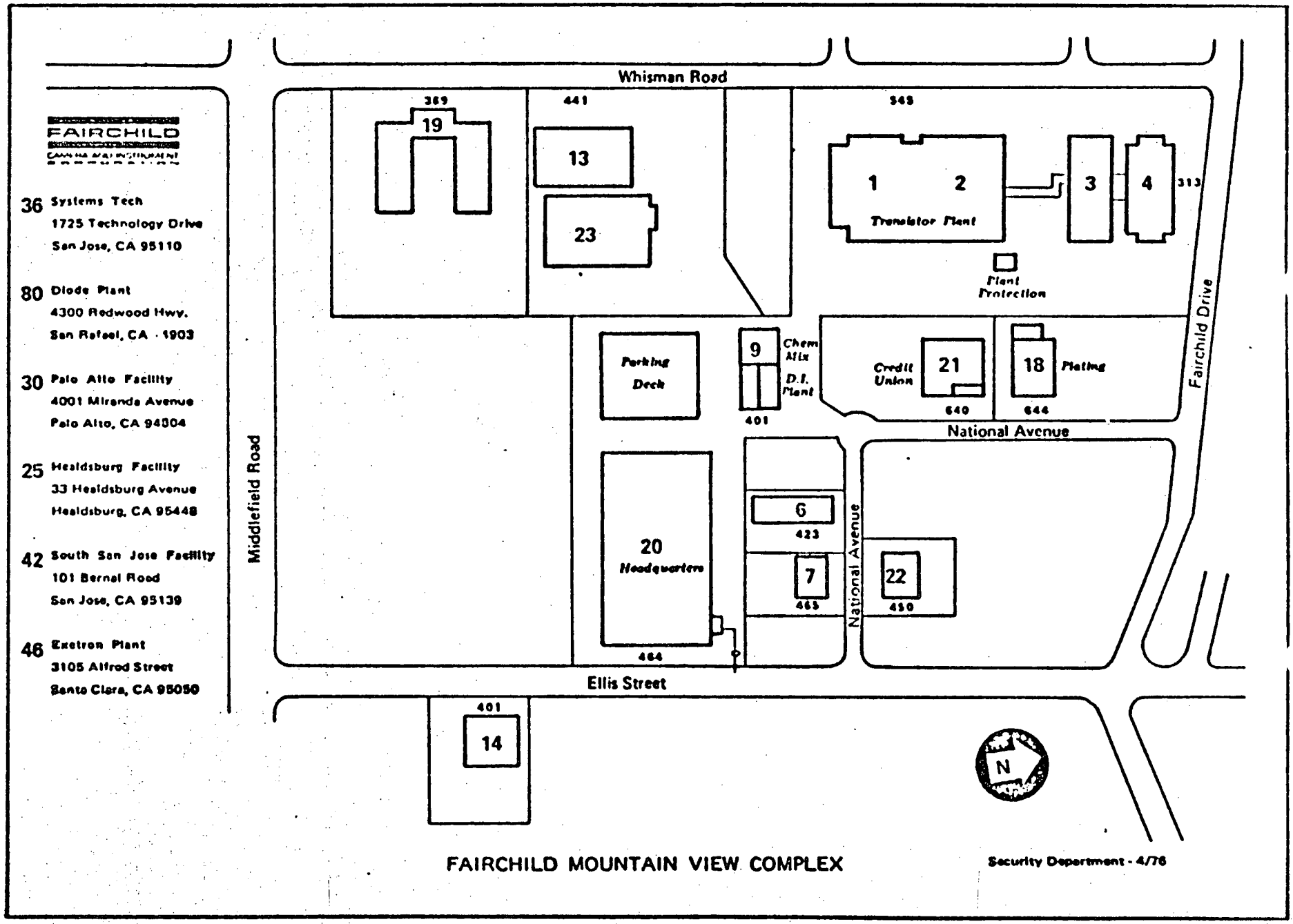
Neutralization of acids is provided by injection of ammonia into mixing tanks with continuous monitoring and control. Fluoride solutions are captured and disposed of separately, not into the city sewer.

Characteristics or exceptional industrial wastes. None.

No radioactive wastes are discharged.

Organic solvents are captured for storage and recycling.

B20


FAIRCHILD
36 Systems Tech
1725 Technology Drive
San Jose, CA 95110
80 Diode Plant
4300 Redwood Hwy.
San Rafael, CA 1903
30 Palo Alto Facility
4001 Miranda Avenue
Palo Alto, CA 94304
25 Healdsburg Facility
33 Healdsburg Avenue
Healdsburg, CA 95448
42 South San Jose Facility
101 Bernal Road
San Jose, CA 95139
46 Exetron Plant
3105 Alfred Street
Santa Clara, CA 95050
Whisman Road
Middlefield Road
Fairchild Drive
National Avenue
Ellis Street
369
19
441
13
23
545
1
2
Transistor Plant
3
4
313
Plant Protection
Parking Deck
9
Chem Mix
D.I. Plant
401
Credit Union
21
640
18
Plating
644
6
423
7
465
20
Headquarters
464
22
450
401
14
N
FAIRCHILD MOUNTAIN VIEW COMPLEX
Security Department - 4/76